REMARKS

1.   **Summary of the Office Action**

In the office action mailed June 26, 2007, the Examiner rejected claims 1-12 under 35 U.S.C. § 101(a) as allegedly failing to produce a useful, concrete, and tangible result. The Examiner rejected claim 37 under 35 U.S.C. § 101 as allegedly not constituting a machine or manufacture within the meaning of 35 U.S.C. § 101. The Examiner rejected claims 6, 18, and 30 under 35 U.S.C. § 112 as allegedly not described in the specification to allow one skilled in the art to make and/or use the invention. Further, the Examiner rejected claims 1-37 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent Number 5,628,013 (Anderson).

2.   **Status of the Claims**

Pending in this application are claims 1-37, of which claims 1, 13, 25, and 37 are independent and the remainder are dependent. Claims 1, 6-13, 18-25, and 30-37 have been amended in this response.

3.   **Response to Claim Rejections**

a.   **35 U.S.C. § 101 objection to claims 1-12 and 37**

Applicant has amended claims 1 and 37 to recite use of Applicant's invention in a system to control and monitor functions in the system (*e.g.* an aircraft avionics system). Controlling and monitoring functions in a system is a useful, concrete, and tangible result. Applicant submits that, as amended, claims 1 and 37 are not objectionable under 35 U.S.C. § 101. Further, Applicant submits that claims 2-12 are not objectionable under 35 U.S.C. § 101 at least for the reason claims 2-12 are dependent on claim 1 and so derive their subject matter of that of allowable claim 1.

b.   **35 U.S.C. § 112 objection to claims 6, 18, and 30**

Claims 6, 18, and 30 have been amended to remove the use of the term "base period." Applicant submits that, as amended, claims 6, 18, and 30 are no longer objectionable under 35 U.S.C § 112.

c.   35 U.S.C. § 102 objection to Claims 1-37

Using similar language, Applicant has amended independent claims 1, 13, 25, and 37 to recite elements having functionality whereby a predetermined system pad can be adjusted when either of the at least two application threads exceed their respective activation time budget. The specific language of claim 1 recites elements that comprise (a) apportioning thread activation time to at least one application with at least two application threads, (b) setting a system pad time value that is predetermined before execution of the application, (c) activating a first application thread for a first actual activation time, (d) comparing the first actual activation time with a first activation time budget, (e) if the first actual activation time exceeds the first activation time budget, adjusting the system pad time value to obtain an updated pad time value, (f) activating a second application thread for a second actual activation time, (g) comparing the second actual activation time with a second activation time budget, and (h) if the second actual activation time exceeds the second activation time budget, adjusting the system pad time value to obtain the updated pad time value.

Applicant has examined the Anderson reference presented by the Examiner in the previous Office Action and did not find all the claimed elements recited in Applicant's independent claims to be disclosed by Anderson. Specifically, Anderson does not teach to Applicant's system using both pads for each thread and a system pad used at the application level for multiple threads.

Anderson creates GPB Estimates for each module but does not create estimates at the application level. Instead, Anderson teaches adjustments to the runtime of a module by a DSP manager that exceeds its runtime, not to adjustments for all modules. "In particular, the DSP Manager can add some percentage to the GPB Estimate for a module if nothing is found in the preferences file when comparing the estimate and the available processing time." Anderson, col. 12, lines 15-18. Note that the estimate is added to the GPB Estimate on a module level and is not an application level estimate, such as the system pad updated with application thread activation times used in Applicant's invention.

Further, Anderson teaches away from Applicant's system. As amended, Applicant's predetermined computer application thread pads and system pads are determined before execution of the application. Also, Applicant's computer application thread pads and system pads do not use run time estimates generated during execution. As stated in claim 1, when "the first actual thread activation time exceeds the first thread activation time budget," the system pad time value is adjusted "to thereby obtain an updated pad time value." Claim 1 also has similar elements for obtaining the updated pad time value when the second actual thread activation time exceeds the second thread activation time budget.

Anderson classifies threads that do not use run time estimates generated during execution as "dumb lumpy modules." See Anderson, col. 9, lines 46-62. Anderson's dumb lumpy modules "are required to limit their processing to the estimated [module] value." Anderson, col. 10, lines 26-28. Applicant asserts that this teaching of Anderson teaches away from Applicant's system where the at least two application threads that do not use run time estimates generated during execution are allowed to exceed their predetermined activation time budgets by adjusting the system pad time value. Therefore, for at least the reasons specified above, Applicant submits

that claim 1, as amended, is not anticipated by Anderson and, in fact, Anderson teaches away from invention recited in claim 1.

Applicant submits that claim 1 is allowable. In addition, without conceding the Examiner's assertions regarding the dependent claims, Applicant submits that the dependent claims 2-12 are allowable for at least the reason that they depend from allowable claim 1.

As Applicant has amended independent claims 13, 25, and 37 using similar language to claim 1, for at least the reasons described above for claim 1, Applicant submits that claims 13, 25, and 37 are allowable. In addition, without conceding the Examiner's assertions regarding the dependent claims, Applicant submits dependent claims 14-24 are allowable for at least the reason that they depend from allowable claim 13 and dependent claims 26-36 are allowable for at least the reason that they depend from allowable claim 25.

4.   Conclusion

In view of the foregoing, Applicant submits that claims 1-37 are allowable, and thus Applicant respectfully requests favorable reconsideration and allowance of these claims.

Should the Examiner wish to discuss this case with the undersigned, the Examiner is invited to call the undersigned at (312) 913-3338 .

Respectfully submitted,

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Dated: December 20, 2007   By: /Thomas J. Loos/
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